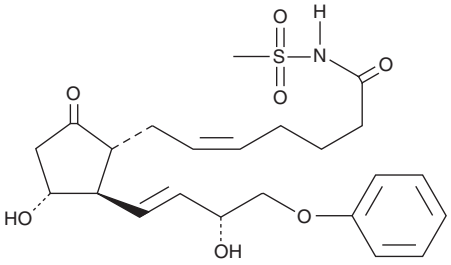
PRODUCT INFORMATION

Sulprostone

Item No. 14765

CAS Registry No.:	60325-46-4
Formal Name:	(5Z)-7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3R)-3-hydroxy-4-phenoxy-1-buten-1-yl]-5-oxocyclopentyl]-N-(methylsulfonyl)-5-heptenamide
MF:	$C_{23}H_{31}NO_7S$
FW:	465.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 220, 270 nm
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Sulprostone is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of sulprostone in these solvents is approximately 25, 14, and 10 mg/ml, respectively.

Sulprostone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of sulprostone should be diluted with the aqueous buffer of choice. The solubility of sulprostone in PBS (pH 7.2) is approximately 4 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Sulprostone is a metabolism resistant synthetic analog of PGE_2.[1] It is a selective agonist for EP_3 receptors with a K_i value of 0.35 nM at the human recombinant EP3-III receptor and an IC_{50} of 0.01 µM for the inhibition of PGE_2 binding.[2,3] Sulprostone is a potent stimulator of uterine smooth muscle contractions with high abortifacient activity.[4,5]

References

1. Schaaf, T.K., Bindra, J.S., Eggler, J.F., *et al.* N-(methanesulfonyl)-16-phenoxyprostaglandincarboxamides: Tissue-selective, uterine stimulants. *J. Med. Chem.* **24(11)**, 1353-1359 (1981).
2. Abramovitz, M., Adam, M., Boie, Y., *et al.* The utilization of recombinant prostanoid receptors to determine the affinities and selectivities of prostaglandins and related analogs. *Biochim. Biophys. Acta* **1483(2)**, 285-293 (2000).
3. Negishi, M., Harazono, A., Sugimoto, Y., *et al.* TEI-3356, a highly selective agonist for the prostaglandin EP3 receptor. *Prostaglandins* **48(5)**, 275-283 (1994).
4. Schillinger, E., Prior, G., Speckenbach, A., *et al.* Receptor binding in various tissues of PGE_2, and sulprostone, a novel PGE_2-derivative. *Prostaglandins* **18(2)**, 293-302 (1979).
5. Krishna, U., Gupta, A.N., Ma, H.K., *et al.* Randomized comparison of different prostaglandin analogues and laminaria tent for preoperative cervical dilation. *Contraception* **34(3)**, 237-251 (1986).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM